WHAT IS CLAIMED IS:

1   1. A method of detecting a metastatic breast cancer or metastatic lung

2 cancer-associated transcript in a cell, the method comprising contacting a biological sample

3 with a polynucleotide that selectively hybridizes to a nucleic acid sequence at least 80%

4 identical to a sequence selected from those listed in Tables 1-12.

1   2. The method of claim 1, wherein the metastatic cancer-associated

2 transcript is a metastatic lung cancer-associated transcript.

1   3. The method of claim 1, wherein the metastatic cancer-associated

2 transcript is a metastatic breast cancer-associated transcript.

1   4. The method of claim 1, wherein the biological sample comprises

2 isolated nucleic acids.

1   5. The method of claim 1, wherein the polynucleotide or the biological

2 sample is labeled.

1   6. The method of claim 1, wherein the polynucleotide is immobilized on

2 a solid surface.

1   7. An isolated nucleic acid molecule consisting of a polynucleotide

2 sequence selected from those listed in Tables 1-12.

1   8. An expression vector comprising the nucleic acid of claim 7.

1   9. A host cell comprising the expression vector of claim 8.

1   10. An isolated polypeptide which is encoded by a nucleic acid sequence

2 selected from those listed in Tables 1-12.

1   11. An antibody that specifically binds a polypeptide of claim 10.

1   12. The antibody of claim 11, wherein the antibody is an antibody

2 fragment.

1   13. The antibody of claim 11, wherein the antibody is a humanized

2 antibody

1   14.   A method of detecting a metastatic breast cancer or metastatic lung

2   cancer cell in a biological sample, the method comprising contacting the biological sample

3   with an antibody of claim 11.

1   15.   The method of claim 14, wherein the antibody is labeled.

1   16.   A method of detecting antibodies specific to metastatic breast cancer in

2   a patient, the method comprising contacting a biological sample from the patient with a

3   polypeptide encoded by a nucleic acid comprising a sequence selected from those listed in

4   Tables 1A-5C, 11A-12C.

1   17.   A method of detecting antibodies specific to metastatic lung cancer in

2   a patient, the method comprising contacting a biological sample from the patient with a

3   polypeptide encoded by a nucleic acid comprising a sequence selected from those listed in

4   Tables 6A-12C.

1   18.   A method for identifying a compound that modulates a metastatic

2   breast cancer-associated polypeptide, the method comprising the steps of:

3   (i) contacting the compound with a metastatic breast cancer-associated

4   polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a

5   nucleic acid sequence at least 80% identical to a sequence selected from those listed in Tables

6   1A-5C, 11A-12C; and

7   (ii) determining the functional effect of the compound upon the polypeptide.

1   19.   The method of claim 18, wherein the functional effect is determined by

2   measuring ligand binding to the polypeptide.

1   20.   A method for identifying a compound that modulates a metastatic lung

2   cancer-associated polypeptide, the method comprising the steps of:

3   (i) contacting the compound with a metastatic breast cancer-associated

4   polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a

5   nucleic acid sequence at least 80% identical to a sequence selected from those listed in Tables

6   6A-12C; and

7   (ii) determining the functional effect of the compound upon the polypeptide.

1   21.   . A method of inhibiting proliferation of a metastatic breast cancer -
2   associated cell in a patient, the method comprising the step of administering to the subject a
3   therapeutically effective amount of a compound that modulates a polypeptide encoded by a
4   nucleic acid sequence selected from those listed in Tables 1A-5C, 11A-12C.

1   22.   A method of inhibiting proliferation of a metastatic lung cancer -
2   associated cell in a patient, the method comprising the step of administering to the subject a
3   therapeutically effective amount of a compound that modulates a polypeptide encoded by a
4   nucleic acid sequence selected from those listed in Tables 6A-12C.

1   23.   A drug screening assay comprising the steps of
2   (i) administering a test compound to a mammal having metastatic breast
3   cancer or a cell isolated therefrom;
4   (ii) comparing the level of gene expression of a polynucleotide that selectively
5   hybridizes to a sequence at least 80% identical to a sequence selected from those listed in
6   Tables 1A-5C, 11A-12C in a treated cell or mammal, with the level of gene expression of the
7   polynucleotide in a control cell or mammal, wherein a test compound that modulates the level
8   of expression of the polynucleotide is a candidate for the treatment of metastatic breast
9   cancer.

1   24.   A pharmaceutical composition for treating a mammal having
2   metastatic breast cancer, the composition comprising a compound identified by the assay of
3   claim 23 and a physiologically acceptable excipient.

1   25.   A drug screening assay comprising the steps of
2   (i) administering a test compound to a mammal having metastatic lung cancer
3   or a cell isolated therefrom;
4   (ii) comparing the level of gene expression of a polynucleotide that selectively
5   hybridizes to a sequence at least 80% identical to a sequence selected from those listed in
6   Tables 6A-12C in a treated cell or mammal, with the level of gene expression of the
7   polynucleotide in a control cell or mammal, wherein a test compound that modulates the level
8   of expression of the polynucleotide is a candidate for the treatment of metastatic lung cancer.

1   26.   A pharmaceutical composition for treating a mammal having

2   metastatic lung cancer, the composition comprising a compound identified by the assay of

3   claim 25 and a physiologically acceptable excipient.

1   27.   A method of detecting a metastatic breast cancer-associated

2   polypeptide in a cell, the method comprising contacting a biological sample from the patient

3   with a antibody that that specifically binds a polypeptide encoded by a polynucleotide

4   sequence selected from those listed in Tables 1A-5C, 11A-12C.

1   28.   The method of claim 27, wherein the antibody is labeled.

1   29.   A method of detecting a metastatic lung cancer-associated polypeptide

2   in a cell from a patient, the method comprising contacting a biological sample from the

3   patient with a antibody that that specifically binds a polypeptide encoded by a polynucleotide

4   sequence selected from those listed in Tables 6A-12C.

1   30.   The method of claim 29, wherein the antibody is labeled.